Transportation for a New Century

A report to the people of Miami-Dade County
No. 8, Summer 2005




MPO's Ride Into the Future

Miami-Dade County's Metropolitan Planning Organization (MPO) is looking beyond conventional transportation management techniques to help relieve traffic congestion. With sustained high growth rates in population, personal vehicle ownership, and trip counts, the MPO must explore cutting edge projects.

Miami-Dade County currently has a population of over 3 million and generates over $75 billion in economic revenue. Considering only these two factors would seemingly put us in an advantageous position. However, as we look closer, we must consider some other important issues.

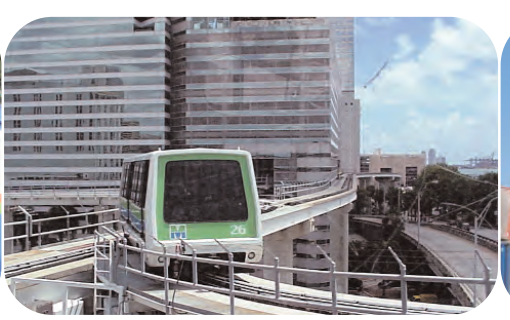
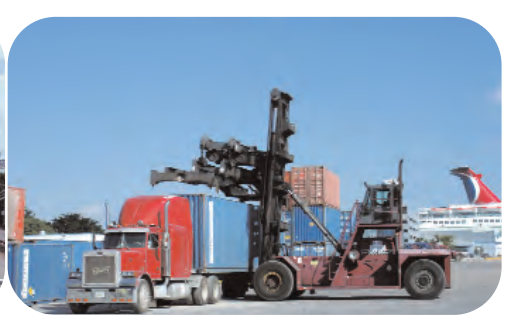
Of the nearly 1.3 million employed workers, almost three fourths drive to work alone and almost half of Miami-Dade residents spend an hour or more in traffic while driving to and from work. Finally, the duration of "rush hour" is growing far and above 60 minutes. Our neighbor counties to the north, Broward and Palm Beach, are also experiencing similar growth and traffic trends.

Transportation planners examine the present state of traffic and plan needed improvements to move people and goods more efficiently. They often use computerized models that simulate the impact of growth on traffic flows. Equipment, research, and public campaigns have also been employed to reduce, redirect, and eliminate traffic. The MPO is also addressing the problem with new planning tools.

To make commuting easier, the MPO is exploring a number of ideas and projects to determine which alternatives can be adopted in our community. The MPO is looking "outside the box" towards innovative projects and programs that promote livable communities through such avenues as water based transit, optically guided bus systems, car-sharing, special use lanes, trolleybus systems, and pedestrian and bicycle improvements.

While some of these projects may not be suitable for South Florida, only by exploring our options and embracing innovation can we assess what is feasible to arrive at a viable transportation future.

Inside this issue...

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The MPO's mission is to plan transportation facilities and services that are integrated and efficient while providing effective community participation.

Our Transportation Partners

MPO PLANNING STUDIES

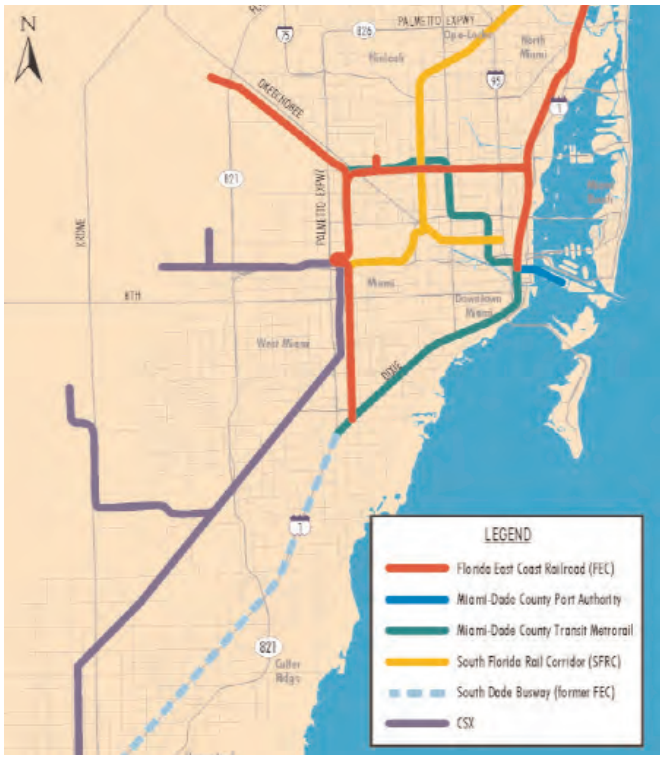
Rails Right-of-Way Conversions and New Uses

In 2004, the Metropolitan Planning Organization (MPO) completed the Rail Convertibility Study to gauge the potential of using underutilized or abandoned rail rights-of-way (ROW) for public transportation and biking and pedestrian facilities. Reuse and conversion of railway ROW has been a common approach used for public transportation over the years. Currently, both the existing Metrorail and Tri-Rail trains utilize former or existing rail ROW, respectively, to operate passenger services.

Corridor suitability was identified by key planning guidelines addressing the following questions:

- Does the corridor link areas where people live and where they want to go?
- Is there sufficient demand for alternative uses on the rail corridors?
- Is there sufficient ROW for multiple uses to coexist on the rail corridors?

The study has assessed the feasibility of projects within corridors according to ROW width, impact on residential areas, freight train operations, number of street crossings, property costs, federal funding potential, and other criteria. Examples of rail ROW targeted for innovative future uses include the Florida East Coast (FEC) Northeast, FEC Ludlam Trail, CSX Airport West, and CSX Kendall/South Dade corridors. To view this report visit: *www.miamidade.gov/mpo.*



Other MPO Studies Recently Completed or Underway:

- 2030 Long Range Transportation Plan (LRTP)
- Special Use Lanes
- Traffic Calming for Pedestrians
- Transit Center Connections
- Bicycle Project Feasibility Evaluation
- Bus Rapid Transit Opportunities
- Congestion Management System
- Connecting Traffic Generators
- Safe Routes to Schools
- Exclusive Busway Corridors
- Trends in Heavy Truck Traffic Management

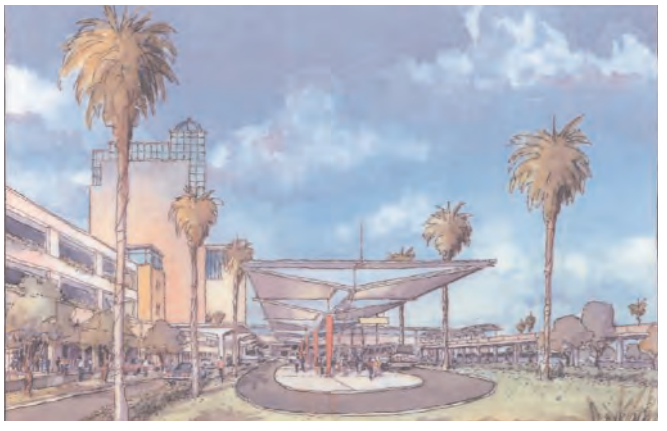
To learn details about these and other MPO Studies visit our website: www.miamidade.gov/mpo

Golden Glades Multimodal Transportation Facility

The Metropolitan Planning Organization's (MPO) Golden Glades Multimodal Transportation Facility Feasibility Study examined alternative configurations that integrated the various transportation modes into a supportive facility in the north side of the County. The project limits involved the southwest quadrant of the Golden Glades Interchange (GGI) at the existing Park-n-Ride lot. The triangular area is bordered by I-95 to the east, NW 157th Avenue to the south and the South Florida Rail Corridor to the north. Recommendations from the Study were as follows:

- The multimodal center should be highly visible;
- Connections from the center to the surrounding roadway network should be as easy as possible;
- The center should have a short, catchy name;
- Responsibilities for future actions should be agreed upon among the governmental entities involved; and
- A Project Development and Environment (PDE) Study should begin as soon as possible.

The Florida Department of Transportation (FDOT) has taken the Study's recommendations and is performing a PDE to provide a new multimodal transportation facility. The study is also addressing market conditions that might allow for a joint public/private partnership in the redevelopment of this important regional transportation hub.



MPO Promoting Improved Urban M

Waterborne Transportation

Brisbane, Australia's Riverside Ferry Terminal

Water-based transit, or at least some form of water-based transportation, has been of some variable interest to the MPO in the past.

The Waterways for Commuter Travel Study was recently completed. The study reviewed previous findings, performed a series of preliminary investigations, and concluded that while there were many sections of useable inland canal waterways, they were also many constraints to their use.

Among the drawbacks and limitations were the frequent interruption of waterways (canals) by low bridges and impassable culverts and proximity to residences.

The findings also noted that there were a number of successful water based firms that could operate such service.

A ferry-based passenger waterborne transit service is now being studied. The study is focused on assessing passenger ferries and evaluating non "tourist rides."

A pilot project has been recommended for implementation and federal funds are being sought for service on Biscayne Bay.

Special Use of Highway Lanes

The Special Use Lane Study evaluated right-of-way (ROW) on freeways and major roadways, which could be used by specially designated vehicle traffic, high occupancy vehicles (HOV), bus rapid transit (BRT) or some combination of the three. Two Tier analyses assessed the following:

- Tier I studied level of service (LOS), number of lanes by facility, directional split, functional classification, frequency of buses and ease of implementation.
- Tier II studied nine (9) corridors including: I-95, SR-826, SR-836, Flagler Street, Biscayne Boulevard, NW 27th Avenue south of SR-112, Douglas Road, LeJeune Road, and Kendall Drive.

A field inspection was conducted to evaluate the physical characteristics and constraints of these facilities.

The study recommended improvements for two potential scenarios for immediate consideration:

- Express Core Service: Includes the implementation of express services under conditions of severe congestion along the emergency (shoulder) lanes of theTurnpike, SR-836, and SR-826; and
- Arterial Core Services: Includes the development of a bus rapid transit (BRT) system along Flagler Street and Biscayne Boulevard.

Recommendation also included further analyses for Kendall Drive. Plans for establishing service on existing expressways are being finalized.

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Metrorail-Coconut Grove Connection

Medellin, Colombia Metrocable

The Metrorail-Coconut Grove Connection Study is examining the feasibility of implementing an exclusive right-of-way transit connection between the Metrorail line and the Coconut Grove Village Center.

Coconut Grove has proven to be one of the most popular places for tourists to visit while in Miami. Furthermore, the "Grove" is host to a variety of street fairs and art shows attended by thousands of south Florida residents every year.

Local traffic gridlock often occurs despite the prohibition of "cruising" and the recent addition of new parking structures and lots.

Shuttle bus service to special events from the Metrorail station has been tried in the past. However, similar congestion problems prevented their effectiveness.

The Metrorail-Coconut Grove Connection Study assessed the suitability of various technologies based on their general characteristics and determined the aerial tramways were an attractive option.

Data assessed from each transit mode included, the characteristics of the physical facilities, ROW requirements, operation capabilities, and broad system costs.

Proposals for the implementation of the project are under development.

obility and Livable Communities...

Safe Routes to School

The "Safe Routes to School" movement encompasses the concerns for students' safe and healthy transport. Encouraging school trips by walking and biking makes good sense and also reduces traffic congestion.

The Metropolitan Planning Organization (MPO) is working closely with Miami-Dade Public Works and Miami-Dade Public School officials to provide the safest practical routes for neighborhood students to walk or bicycle to school. First, planners determine a school's service are and then survey the area for existing pedestrian facilities, traffic devices, and other data pertinent to pedestrian safety. Based on this review, planners map out "Safe Routes" for neighborhood children to reach their school (as shown in the map for the proposed "Safe Route" for Arcola Lake Elementary).

To ensure the success of this program, parental involvement is encouraged through public feedback and by leading their children on the initial walks on the "Safe Routes." Periodic route revisions are made as part of the "Safe Routes" to School program.

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Freight Movement

As a major state and national port site, Miami-Dade County is especially dependent on the movement of freight to and from the Port of Miami (POM) and also freight moving in and out of Miami International Airport (MIA).

Truck traffic is concentrated primarily in the west and north and between the POM, MIA, and north on I-95 to Broward County. Much of the truck travel in the County occurs on SR-836 and points north. The POM, MIA and Florida East Coast (FEC) rail yard in Hialeah are major freight hubs.

From this study it was determined that: roadways and bridges with high numbers of trucks deteriorate faster; slower moving trucks can halt the flow of commuter traffic; and trucking accidents often cause a disproportionately larger or longer traffic slowdown, due to vehicle size and the impact of cargo.

The current situation where trucks and buses access the POM via downtown streets is a major concern. Other concerns include access from the airport west cargo area to the SR-826.

A truck-traffic management program is being rendered as a result of this study in consultation with the trucking industry.

Pedestrian Safety

The on-going Pedestrian Safety Study has resulted in the implementation of measures that have helped to reduce vehicle-pedestrian accidents. Police reports involving pedestrian traffic in Miami-Dade County are reviewed and recorded as crash reports describing the circumstances of the accident, when the accident occurred, and the characteristics of the pedestrian.

Pedestrian safety is implemented in three phases; education; enforcement; and engineering countermeasures.

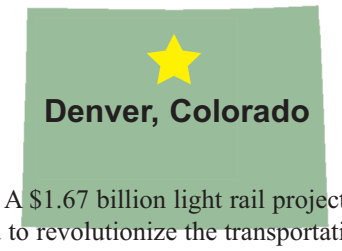
Educational materials are distributed to the demographic groups that are mostly affected. These incidents are then geographically located and dangerous areas are targeted for intervention. Traffic engineers work to improve physical environments by reducing the likelihood of accidents involving pedestrians.

Engineering improvements include using better signs, street markings, and more lighting. They also include high-tech innovations such as detectors that become automatically aware of the presence of people when on a crosswalk or on the curbside area. This study has led to more detailed evaluations on the state of pedestrian safety in Miami-Dade County.

A similar project is underway concerning bicyclists' safety.

Passive infrared detectors capable of automatically detecting the presence of pedestrians.

IDEAS WORKING IN OTHER PLACES



T-REX: A $1.67 billion light rail project that is designed to revolutionize the transportation network in and around Denver, Colorado. The project includes 17-miles of highway expansion and improvements to I-25, 19 miles of light rail developments, a new drainage system, and improved pedestrian and bicyle access.

Tacoma Link: A 1.6-mile modern electric streetcar line designed to connect major activity and transit centers in downtown Tacoma and provide a key interconnection with other major regional transit services provided by Sound Transit, the region's major public transport agency.

Metrolink: A premier regional rail system, including commuter and other passenger services, linking communities to employment and activity centers.

Light Rail Transit: Runs 30-miles and provides and intermodal connection to airlines and commuter trains. The line intersects with current light rail service, the Baltimore, Washington international BWI Airport, and Penn Station.

In the Nation...

Buses Use Expressway Shoulders in Minneapolis

In 1992, Minneapolis' Metro Transit created the Bus-Shoulder system out of necessity, when a large downpour flooded one of the major freeways leading into downtown.

Officials then came up with the plan to have buses use the shoulders during rush hour. In less than a week, workers had restriped the lanes and put up signage.

Over the past 12-years, Metro Transit has expanded the shoulder lanes and now 14 transit routes and 400 buses use more than 200 miles of shoulder lanes daily.

Shoulder operation in the Minneapolis area offers bus passengers a significant time advantage, while maintaining the safety of all highway users with simple operational rules. If a vehicle is blocking the shoulder the buses merge back into the flow of traffic. There have not been any injury accidents in over a decade of operation.

Car-Sharing in Seattle

Car-sharing is a new approach to personal transportation which combines self-service, on-demand service, and a "pay as you go" agreement. Car-sharing allows subscribers to reserve and use vehicles of their choice on an hourly basis. This innovation reduces vehicle dependency during peak traffic periods, encouraging use of automobiles for special occasions.

Private firms in Europe as well as the U.S. have found viable markets for these services. In Seattle, commuters are rewarded for selling their second cars and using their monthly payments toward their car-sharing fees. While these programs do not entirely remove cars from roadways, they do begin to focus on the importance of transporting people over cars.

Bus Rapid Transit in Cleveland

The Federal Transit Administration (FTA) has launched the Bus Rapid Transit (BRT) Initiative to improve the speed, reliability, and convenience of bus service, to enhance the mobility and access needed for thriving communities, and to promote a healthy environment.

The Euclid Corridor Transportation (ECT) Project is part of a Demonstration Program backed by technical support from the FTA. The goal of the ECT is to improve transit service, as well as support increased development along Euclid Avenue, all while benefiting from the flexibility of buses. The project will provide shorter travel times along Euclid Avenue and linkages with other transit services for better access to work, home, medical, educational, and cultural centers in Greater Cleveland. The project supports a BRT line from Public Square in downtown Cleveland to the Stokes Rapid Transit Station at Windermere in east Cleveland. Euclid Avenue will be served by a unique, aerodynamic 60-foot Euclid Corridor Vehicle (ECV), which will be quiet and environmentally friendly. Currently, the proposed vehicle is a diesel-electric bus, similar to ones that are currently operating in Europe. The vehicles use a low-sulfur diesel motor to power smaller electrical engines mounted near the wheels of the vehicle.

THAT COULD WORK IN MIAMI-DADE

In Other Countries...

Creating a Sustainable Community in Brazil

The City of Curitiba, Brazil, began addressing the challenge of rapid growth in the 1960s. Curitiba's transportation plan integrated transportation and land use planning: growth was directed to designated corridors that would be well served by public transit. However, the user pays only a single fare on this system. This "social fare" means that shorter trips pay for longer trips, reaching low-income people in the suburbs. Fares are collected on a “pre-boarding” basis.

Urbaniza a de Curitiba, a public/private company, runs all aspects of the system. Today, despite Curitiba's metropolitan population having reached 2.3 million, and the city having one of highest car ownership rates in Brazil, 1.9 million passengers use system daily. Curitiba has the highest public transit ridership of any Brazilian city. Other initiatives complement Curitiba's bus system. These include a pedestrian and a bicycle path network; incentives to preserve green space; preservation of historic neighborhoods; and recycling and garbage collection programs.

Alleviating Central London Congestion

The London, England project requires drivers to pay £5 (US $9.46) per day if they wish to continue driving into central London during designated hours of operation. This encourages proactive drivers to consider alternative forms of transportation.

There are no tollbooths or barriers around the central London congestion charging zone and no physical tickets or passes. Instead, drivers may pay to register their vehicle registration number on a database for travel within the charging zone. There is a network of 203 camera sites monitoring every entrance and exit to the congestion charging zone along the boundary road and monitoring journeys made solely within the charging zone.

Not all drivers have to pay the central London congestion charge. There are a range of exemptions and discounts available to certain categories of vehicles and individuals. Several of these categories require registration. The following drivers may apply for exempt status or discounts from the congestion charge:

- Disabled persons;
- Residents living within the charging zone;
- Drivers of alternative fuel vehicles;
- Vehicles with 9 or more seats;
- Drivers of roadside recovery vehicles;
- Accredited breakdown organizations; and
- Drivers of electrically propelled vehicles.

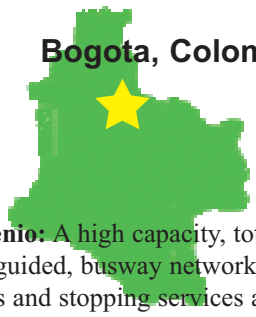
France’s Optically Guided Bus

In Rouen, France, the decision to develop an optically guided bus system was made in July 1999. The Civis buses with optical scanning capabilities do not require digging up roads, and are much cheaper than building a tram system. Civis guided buses use optically guided scanners in curb or median lanes to assure proper positioning at the station. Neighborhood revitalization and urban design features were integrated with the system development.

The Agora bus is 58-feet long and has 40 seats and a total of 110 places. Because there is no drive shaft or transmission, the cabin floors are flat, with no steps that passengers must climb. Instead, the doors open at the level of the curb so that people can enter or exit in groups, as they would on a subway car. Those in wheelchairs can roll onto the bus.

Octopus Access Control System: TheOctopus card is a rechargeable smart card used for transportation. Money is “stored” in the card and the amount can be automatically calculated and deducted. The system has proven so popular it has been extended to different services such as supermarkets and fast food restaurants.

Trondheim Toll Ring: This system has 12 toll plazas that surround the central area where 50,000 people live. Vehicle identity is recorded electronically by scanning a “Q-FREE” tag. Tolls are recorded only on entry into the ring and exiting from the area is free. Peak period pricing is a feature of the electronic tag system.



Transmilenio: A high capacity, totally segregated, but unguided, busway network. A mixture of express and stopping services are used to achieve the required capacity. The busways are usually located in the center of major highways with access to stops via footbridges or at-grade crossings in city centre locations.

Intelligent Transportation Systems: To alleviate congestion sensors were installed along Nagano’s main arteries that collect and process information about traffic conditions.

DON'T WAIT ANOTHER MINUTE...GET INVOLVED NOW

Send Your Comments!

Give us your ideas on Transportation.

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Thank you for your time!

Name: _____

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Visit our website:
www.miamidade.gov/mpo

Second Annual Public Service Announcement Contest

"Creative, humorous, and entertaining," are some of the words used by Miami-Dade Metropolitan Planning Organization's (MPO) Director, Jose-Luis Mesa, to describe this year's 2nd Annual PSA video contest winners. The MPO held its second Countywide PSA contest that attracted almost 200 applicants from five colleges and, for the first time, nine High Schools throughout Miami-Dade County. This contest has become a two-pronged outreach effort in that it is a great way for staff to educate students about the MPO and the planning transportation process and then let them, in turn, take their interpretations to video and educate the viewing public.

Students were challenged to create 30-second PSAs to encourage citizens in the County to get involved with the transportation planning process. Three student producers created exceptional PSAs and were chosen as the winners: Julian Seepersand and Andy Martinez both Communication Majors at Barry University and Robert Rivera, a Senior at Miami-Dade College. An honorable mention was given for TV Production to Miami Senior High School Senior, Elizabeth Porro.

Each winner's PSA will be aired for one month on Miami-Dade TV beginning May 1, 2005. The MPO Governing Board recognized the winners with plaques and letters of recognition during their April 21, 2005 meeting.

MPO Governing Board members honor Barry University's Julian Seepersand and Miami High School's Elizabeth Porro.

Get Involved with an MPO Citizen Committee

The Metropolitan Planning Organization (MPO) wants you to be informed and involved in the transportation planning process. The MPO is your transportation decision-making body, so make your voice heard to help us better serve you!

The MPO has four citizen committees that address citizens' transportation interests in Miami-Dade County and make recommendations to the MPO Governing Board. We encourage you to personally get involved by joining one of the following citizens' groups:

- Citizens Transportation Advisory Committee: Advises the Board on transit issues, elderly and disabled transportation issues, as well as transportation in the aviation and maritime sectors.
- Bicycle/Pedestrian Advisory Committee: Represents interests of bike clubs, health organizations, walking/running clubs, educators, and other groups familiar with these modes of transportation.
- Transportation Aesthetics Review Committee: Advises the Governing Board on visual aspects of major transportation projects.
- Freight Transportation Advisory Committee: Advises the Board on issues and concerns dealing exclusively with freight and truck traffic.

The MPO has dedicated time and effort to support the diverse needs of the community. From infrastructure, truck traffic, commuters, bicyclists, and pedestrians, these committees have devised goals and strategies to better suit the individual needs of each transportation mode.

Individuals interested in serving on one of the above citizens committees should contact the MPO at 305.375.4507.

This document was published through a cooperative effort of the Metropolitan Planning Organization and the Metropolitan Center at Florida International University. Thanks to all the agencies for their cooperation and assistance. Project Team Members: Elizabeth Rockwell, Vanessa Brito, Dario Gonzalez, Miguel Cordero, and Mauro Ponce.